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09/715,045Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) A telecommunication method using a network including at least two network elements; the method comprising the steps of:

broadcasting data over the network by a first network element;

including, within the data broadcast by the least two network elements, indicating the resources of the first network element available for sharing, within the data;

requesting the use of at least part of the available resources of the first network element by a second network element;

negotiating a cost for the resources by the first and second network elements;

after the cost has been negotiated, executing a task by co-operation of the first and second network elements by using the requested and negotiated resources of the first network element and resources of the second network element; and

releasing the resources of the first network element by the second network element ~~upon~~ after completion of the task.

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2. (Canceled)

3. (Currently Amended) A method according to claim 1, wherein ~~including the step of providing~~ the network is in the form of a wide band short range wireless network.

4. (Currently Amended) A method according to claim 1, wherein ~~including the step of providing at least one of the~~ is network elements in the form of a mobile device.

5. (Currently Amended) A method according to claim 1, wherein the network includes ~~including the step of providing~~ geographically distributed wireless base stations.

6. (Currently Amended) A method according to claim 1, wherein ~~including the step of providing~~ the network is ~~in the form of~~ a piconet.

7. (Currently Amended) A method according to claim 1, wherein ~~including the step of providing~~ at least ~~any~~ one of the following is ~~as~~ the resource to be shared:

memory;

a network connection;

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processing power;
power source; or
a cheap connection.

8. (Canceled)

9. (previously presented) A network comprising first and second network elements, the first network element having broadcast means adapted to broadcast data indicative of resources of the first network element available for sharing, the second network element having communication means adapted to request at least some of said available resources, the first and second network elements being adapted to execute a task, co-operatively utilizing said resources, and to complete a task at the first network element by using resources at the second network element.

10. (Original) A network according to claim 9 wherein the network is a wireless network.

11. (Original) A network according to claim 9 wherein the network is a wide bandwidth short range wireless network.

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12. (Currently Amended) A network according to claim 9 wherein the first and second network elements includes ~~may be~~, respectively, any one of:

- a personal digital assistant;
- a pc;
- a laptop computer;
- a mobile telephone;
- a router;
- a server;
- a regenerative repeater;
- a multiplexer; or
- a codec.

13. (Original) A network according to claim 9 wherein the resource for sharing is any one of:

- memory;
- storage capacity;
- network connections; or
- a connection to a public land mobile network.

14. (Currently amended) A network resource sharing protocol between first and second elements of a network, the protocol including:

- a discovery phase;
- a negotiation phase; and
- a fulfillment phase;

negotiation phase including an agreement of a cost for the use of sharable resources of ~~a~~ the first network element by a ~~a~~

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the second network element during the fulfillment phase;
the fulfillment phase including co-operation between the
first and second network elements of the sharable resources of
the first element in accordance with the agreement made during
the negotiation phase.

15. (Currently amended) A protocol according to claim 14, wherein the discovery phase includes a first network element ~~for~~ broadcasting a notification of its sharable resources over ~~a~~ the network.

16. (Currently amended) A protocol according to claim 14, wherein the negotiation phase includes ~~a~~ the second network element ~~for~~ requesting at least some sharable resources of ~~a~~ the first network element.

17. (Canceled)

18. (Canceled)

19. (Currently amended) A protocol according to claim 14 wherein the fulfillment phase includes ~~the~~ execution of a task by ~~a~~ the first network element and ~~the~~ passing of a result of the task to ~~a~~ the second network element.

20. (Currently amended) A protocol according to claim 14 wherein the fulfillment phase includes ~~the~~ termination of communication between the first and second network elements.

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21. (Currently amended) A first network element for use in a telecommunication network including the first network element and a second network element arranged for (a) issuing requests to the first network element and (b) sending the requests to the first network element via the telecommunication network, the first network element comprising:

a transmitter/receiver for broadcasting and receiving data over the network; and

a processor arrangement connected to interact with the transmitter/receiver for (a) indicating, within the data, resources of the first network element available for sharing, ~~within the data,~~ (b) receiving a request by the second network element for use of at least part of the available resources of the first network element by the second network element, the use being to assist in performing a task of the second network element, (c) enabling the first network element to cooperate with the second network element to negotiate a cost for the resources, (d) using the resources in cooperation with resources of the second network element to assist in performing the task, the processor being arranged to use the resources after completion of the negotiation, and ~~(d)~~ (e) releasing the resources of the first network element ~~upon~~ after completion of the task in response to a request by the second network element.

22. (Currently Amended) A method of operating a first network element of a telecommunication network including the first network element and a second network element arranged for

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(a) issuing requests to the first network element and (b) sending the requests to the first network element via the telecommunication network, the operating method of the first network element comprising:

broadcasting data over the network;

including, within the data broadcast by the first network element, indicating the resources of the first network element available for sharing, within the data;

receiving a request, via the network, by the second network element, the use being to assist in performing a task of the second network element, for use of at least part of the available resources of the first network element by the second network element;

negotiating a cost for the resources by cooperating with the second network element;

using the resources in cooperation with resources of the second network element to assist in performing the task, the processor being arranged to use the resources after completion of the negotiation, and

releasing the resources of the first network element upon after completion of the task in response to a request received by the first network element, via the network, as transmitted by the second network element.

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23. (Currently amended) A second network element for use in a telecommunication network including a first network element and the second network element, the first network element being arranged for (a) broadcasting data over the network, (b) indicating, within the data, resources of the first network element available for sharing, ~~within the data,~~ (c) releasing the resources of the first network element upon completion of the task in response to a request by the second network element, the second network element comprising:

a transmitter/receiver for broadcasting and receiving data over the network; and

a processor arrangement connected to interact with the transmitter/receiver for (a) causing transmission via the network to the first network element of a request for the use of at least part of the available resources of the first network element, (b) causing the second network element to cooperate with the first network element to negotiate a cost for the available resources, (c) causing co-operation of a resource of the second network element with the available resources of the first network element, the co-operation causing the performance of a task of the second network element, the co-operation occurring after the completion of the negotiation, and ~~(e)~~ (d)

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causing transmission via the network to the first network element for release of the available resources of the first network element ~~upon~~ after completion of the task.

24. (Currently amended) A method of operating a second network element of a telecommunication network including a first network element and the second network element, the first network element being arranged for (a) broadcasting data over the network, (b) indicating, within the data, resources of the first network element available for sharing, ~~within the data,~~ and (c) releasing the resources of the first network element upon completion of the task in response to a request by the second network element, the method of operating the second network element comprising:

sending, via the network, to the first network element a request for use of at least part of the available resources of the first network element;

negotiating a cost for the resources by cooperating with the first network element;

causing co-operation of a resource of the second network element with the available resources of the first network element, the co-operation causing the performance of a task of the second network element, the co-operation occurring after the

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completion of the negotiation; and

sending, via the network, to the first network element a release of the resources of the first network element ~~upon~~ after completion of the task.

25. (Currently Amended) A telecommunication method using a network including at least two network elements; the method comprising the steps of:

broadcasting data over the network by a first network element;

including, within the data broadcast by the first network element, ~~indicating~~ the resources of the first network element available for sharing, ~~within the data;~~

requesting the use of at least part of the available resources of the first network element by a second network element;

executing a task by co-operation of the first and second network elements;

releasing the resources of the first network element by the second network element upon completion of the task; and

completing the task at the first network element by using resources at the second network element.

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26. (Currently Amended) A method according to claim 25, ~~wherein including the step of providing the network is in the form of~~ a wide band short range wireless network.

27. (Currently Amended) A method according to claim 25, ~~wherein including the step of providing at least one of the network elements is in the form of~~ a mobile device.

28. (Currently Amended) A method according to claim 25, wherein ~~including the~~ network includes ~~step of providing~~ geographically distributed wireless base stations.

29. (Canceled)

30. (Currently Amended) A method according to claim 25, ~~wherein including the step of providing at least any one of the following is the~~ as the resource to be shared:

- memory;
- a network connection;
- processing power;
- power source; or
- a cheap connection.

31. (Currently Amended) A first network element for use in a telecommunication network including the first network

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element and a second network element arranged for (a) issuing requests to the first network element and (b) sending the requests to the first network element via the telecommunication network, the first network element comprising:

a transmitter/receiver for broadcasting and receiving data over the network; and

a processor arrangement connected to interact with the transmitter/receiver for (a) indicating, within the data broadcast by the transmitter/receiver, resources of the first network element available for sharing, ~~within the data,~~ (b) receiving a request by the second network element for use of at least part of the available resources of the first network element by the second network element, (c) causing the first network element to cooperate with the second network element to execute a task, (d) releasing the resources of the first network element upon completion of the task in response to a request by the second network element, and (e) completing the task at the first network element by using resources at the second network element.

32. (Currently amended) A method of operating a first network element of a telecommunication network including the first network element and a second network element arranged for

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(a) issuing requests to the first network element and (b) sending the requests to the first network element via the telecommunication network, the operating method of the first network element comprising:

broadcasting data over the network;

including, within the data broadcast by the first network element, indicating the resources of the first network element available for sharing, ~~within the data;~~

receiving a request, via the network, by the second network element for use of at least part of the available resources of the first network element by the second network element;

executing a task by cooperating with the second network element;

releasing the resources of the first network element ~~upon~~ after completion of the task in response to a request received by the first network element, via the network, as transmitted by the second network element; and

completing the task at the first network element by using resources at the second network element.

33. (Currently amended) A second network element for use in a telecommunication network including a first network element and the second network element, the first network element being arranged for (a) broadcasting data over the network, (b)

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indicating, within the data broadcast by the first network element, resources of the first network element available for sharing, ~~within the data~~, (c) releasing the resources of the first network element upon completion of the task in response to a request by the second network element, the second network element comprising:

a transmitter/receiver for broadcasting and receiving data over the network; and

a processor arrangement connected to interact with the transmitter/receiver for (a) causing transmission via the network to the first network element of a request for the use of at least part of the available resources of the first network element, (b) causing the second network element to cooperate with the first network element to execute a task, (c) causing transmission via the network to the first network element for release of the resources of the first network element ~~upon~~ after completion of the task, and (d) causing resources at the second network element to be used for completing the task at the first network element.

34. (Currently amended) A method of operating a second network element of a telecommunication network including the first network element and the second network element, the first

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network element being arranged for (a) broadcasting data over the network, (b) indicating, within the data resources of the first network element available for sharing, ~~within the data,~~ (c) co-operating with the second network element to complete a task of the second network element, and ~~(e)~~ (d) releasing the resources of the first network element upon completion of the task in response to a request by the second network element, the method of operating the second network element comprising:

sending, via the network, to the first network element a request for the use of at least part of the available resources of the first network element;

~~executing a task by~~ cooperating with the first network element so the task is completed at the first network element by using resources at the second network element; and

sending, via the network, to the first network element a release of the resources of the first network element ~~upon~~ after completion of the task; and

~~completing the task at the first network element by using resources at the second network element.~~

35. (New) A telecommunication method using a network including at least first, second and third network elements; the method comprising the steps of:

broadcasting data over the network by the first and second

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network elements;

including, within the data broadcast by the first and second network elements, the respective resources of the first and second network elements available for sharing by other network elements of the network;

requesting, by the third network element, the use of at least part of the available resources of the first and second network elements;

negotiating a cost for the available resources of the first network element by the first and third network elements;

negotiating a cost for the available resources of the second network elements by the second and third network elements;

after the costs have been negotiated, executing a task by co-operation of the first, second and third network elements by using the requested and negotiated resources of the first and second network elements and resources of the third network element; and

releasing the resources of the first and second network elements by the third network element after completion of the task.

36. (New) The method of claim 35 wherein the network is a wideband short-range wireless network.

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37. (New) The method of claim 35 wherein the network is a piconet.

38. (New) The method of claim 35 wherein the available resources of the first and second network elements include at least one of: memory; a network connection; processing power; power sources; and a cheap connection.

39. (New) A telecommunication network comprising: at least first, second and third network elements; the first and second network elements being arranged for broadcasting data over the network, the first and second network elements being arranged so the data broadcast thereby includes the respective resources of the first and second network elements available for sharing by other network elements of the network; the third network element being arranged for requesting the use of at least part of the available resources of the first and second network elements; the first and third network elements being arranged for negotiating a cost for the available resources of the first network element for use in conjunction with a task to be performed by the third network element; the second and third network elements being arranged for negotiating a cost for the available resources of the second network element for use in conjunction with the task to be performed by the third network element; the first, second and third network elements being arranged so that after the costs have been negotiated the task to be performed by the third network element is cooperatively performed by using the requested and negotiated resources of the first and second elements and resources of the third network element; the first, second and third network elements being arranged so the resources of the first second network elements

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are released by the third network element after completion of the task.

40. (New) The network of claim 39 wherein the network is a wideband short-range wireless network and each of the first, second and third network elements includes a transmitter/receiver adapted for use with the wideband short-range wireless network.

41. (New) The network of claim 39 wherein the network is a piconet and each of the first, second and third network elements includes a transmitter/receiver adapted for use with the piconet.

42. (New) The network of claim 39 wherein each of the first and second network elements includes, as a resource to be shared at least one of the following: memory; a network connection; processing power; power source; and a cheap connection.

43. (New) A network comprising at least first and second network nodes, the first network node including a first transmitter/receiver arrangement for (a) broadcasting to other network nodes of the network data indicative of resources of the first network node available for sharing to assist in performing tasks of the other network nodes, and (b) receiving signals from the other network nodes, the second network node having a second transmitter/receiver arrangement for (a) broadcasting to further network nodes of the network a request for shared resources available from the further network nodes to assist in performing a task of the second network node and (b) receiving from the

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first network node the broadcast data indicative of the first network node available for sharing, the first and second network nodes being arranged for causing the first and second transmitter/receiver arrangements to exchange signals (a) concerned with negotiating a cost to the second network node of resources of the first network node available for sharing to assist in performing the task of the second network node and (b) for thereafter enabling the resources of the first network node available for sharing to be used cooperatively with resources of the second network node to assist in performing the task of the second network node.

44. (New) The network of claim 43 wherein the network is a piconet and the first and second transmitter/receiver arrangements are adapted for use with the piconet.

45. (New) The network element of claim 21 wherein the network is a piconet and the transmitter/receiver is adapted for use with the piconet.

46. (New) The method of claim 22 wherein the network is a piconet and the data are transmitted from the first network element and the request is received by the first network element by a transmitter/receiver arrangement adapted for use with the piconet.

47. (New) The network element of claim 23 wherein the network is a piconet and the data are transmitted from the first network element and received by the first network element by a transmitter/receiver arrangement adapted for use with the piconet.

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48. (New) The method of claim 24 wherein the network is a piconet and the request and release are sent from the second network element by a transmitter/receiver arrangement adapted for use with the piconet and the co-operation by the second network element is achieved by the transmitter/receiver arrangement adapted for use with the piconet.

49. (New) The method of claim 25 wherein the network is a piconet and the data are transmitted from the first network element by a first transmitter/receiver arrangement of the first network element adapted for use with the piconet, and the request and release are transmitted from the second network element by a second transmitter/receiver arrangement of the second network element adapted for use with the piconet, the first and second transmitter/receiver arrangements exchanging signals causing the task to be executed by co-operation of the first and second network elements.

50. (New) The network element of claim 31 wherein the network is a piconet and the transmitter/receiver is adapted for use with the piconet.

51. (New) The method of claim 32 wherein the network is a piconet and the data are transmitted from the first network element and the request is received at the first network element by a transmitter/receiver arrangement adapted for use with the piconet.

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52. (New) The network element of claim 33 wherein the network is a piconet and the transmitter/receiver is adapted for use with the piconet.

53. (New) The method of claim 34 wherein the network is a piconet and the request and release are sent from the second network element by a transmitter/receiver arrangement adapted for use with the piconet and the task is completed at the first network element as a result of cooperation between the first and second network elements via signals coupled through the transmitter/receiver arrangement adapted for use with the piconet.

54. (New) A network comprising at least first and second network nodes, the first network node including a first transmitter/receiver arrangement for (a) broadcasting to other network nodes of the network data indicative of resources of the first network node available for sharing to assist in performing tasks of the other network nodes, and (b) receiving signals from the other network nodes, the second network node having a second transmitter/receiver arrangement for (a) broadcasting to further network nodes of the network a request for shared resources available from the further network nodes to assist in performing a task of the second network node and (b) receiving from the first network node the broadcast data indicative of the first network node available for sharing, the first and second network nodes being arranged for causing the first and second transmitter/receiver arrangements to exchange signals for enabling the resources of the first network node available for sharing to be used cooperatively with resources of the second network node such that the first network node completes the task

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of the second network node.

55. (New) The network of claim 54 wherein the network is a piconet and the first and second transmitter/receiver arrangements are adapted for use with the piconet.